

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2016-164 Date Opened: 16 Dec 2016 Title: FabricationAircraft OEM: Eurocopter Aircraft Model: AS350/355 Product Type: Cargo Basket Lid Product Model: Medium Quantity: 5**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification (Original)
Time Sheet (R&D)
Notes

Initial or N/A

DB
N/A
DB
DB
DB
N/A
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

JC
JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
69812	4	Lid Assembly	DB
84263	0	Lid Handle Brackets	DB
70405	4	Lid Walkway	DB

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

5
N/A
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Tracking Tags (White) Completed
Parts Placed in Stores for Distribution

Initial or N/A

N/A
JC
N/A
N/A
N/A
N/A

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

JC
N/A
N/A

Traveller

Work performed by:

Print: D. BartfaiSign: SCA: AD07Date: 01-Mar-17

ICC / Dual Inspection performed by:

Print: J. ClarkeSign: SCA: AD02Date: 01-Mar-17

Work Order closed by:

Print: J. ClarkeSign: SCA: AD02Date: 22-Mar-17

Approved Manufacturing Facility 73-04

Form 20.D.02

Rev. Original 23 Sep 2014

Work Order: 2016-164Date Opened: 16 Dec 2016

Material Tracking Sheet
Bell 206L / 407 and Eurocopter AS350 / AS355
Lid Fabrication

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>5</u>		69812-01	Lid Assembly		
Step 1				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (75.75")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15072</u>
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15072</u>
Step 2				<i>Weld Rim Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>14033</u>
Step 3				<i>Inspection - Rim</i>	None	
Step 4				<i>Frame Assembly</i>		
	. 3		--	3/4" Tube - Cross Member (21")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15072</u>
Step 5		70405		<i>Option: Frame Assembly - with walkway</i>		
	. 8		--	1/2" Tube - walkway	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>15072</u>
Step 6				<i>Weld Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>14033</u>
Step 7				<i>Inspection - Frame Assembly</i>	None	
Step 8				<i>Mesh Assembly</i>		
	. 1		--	Mesh (lid - 75" x 22")	3/4-16F Expanded Mild Steel sheet	<u>16038</u>
Step 9				<i>Weld Mesh</i>		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	<u>15059</u>

Work Order: 2016-164Date Opened: 16 Dec 2016

Material Tracking Sheet
Bell 206L / 407 and Eurocopter AS350 / AS355
Lid Fabrication

2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 10				<i>Weld Lid Components</i>		
Step 10.a.	. 1	84262	84262-01	Upper Handle Bracket Assembly		<u>2016-54 / 2016-147</u>
	. . 4		36273-01	Lid Bracket	321 Stainless, 0.050 Sheet	
	. . 2		36275-02	Support	304 Stainless, 5/16" Rod	
	. A/R		--	Welding Rod	ER308L TIG Rod	<u>14028</u>
Step 10.b.	. 2		49216-01	Spacer (Lid prop)	304 Stainless, 1/2" Dia.	<u>2015-84</u>
	. A/R		--	Welding Rod	ER308L TIG Rod	<u>14028</u>
Step 10.c.	. 1		36204-10	Placard Bracket	1018 Steel, 0.035" Sheet	<u>2016-119</u>
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>14033</u>
Step 11				<i>Clean Up</i>		
Step 12				<i>Inspection - Final Assembly</i>		
Step 13				<i>Powder Coating</i>		<u>17022</u>



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

Serviceable



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Handle Bracket Assy. No. of pieces: 70

Manufacturer: Aero Design

Part No.: 84263 Serial No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2016-54

Remaining Tasks to be Performed: Weld to lid.

Signature: [Signature]

Date: April 7/2016 Lic. No. / SCA AD-05

Serviceable

2016-164
16 Dec 2016

AS350 M X 5

CARGO BASKET LID FABRICATION - COMMON

General

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket

94612, Revision 0 – Extra-Wide Low Mounted Ski Basket

76612, Revision 0 – High Mounted Ski Basket

Eurocopter AS350/AS355 – left or right

77612, Revision 1 – Short Basket

69812, Revision 3 – Medium Basket (left and right) ←

78412, Revision 2 – Long Basket

94012, Revision 0 – Extra Large (ski) Basket

Robinson R44 – left or right

90612, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80212, Revision 0 – Short Basket

80312, Revision 0 – Medium Basket

81112, Revision 0 – Long Basket

Bell 429 – right or left

95912, Revision 0 – Standard Basket

Bell Medium – left or right

75112, Revision 0 – Standard Basket

95512, Revision 0 – Extra Large (ski) Basket

MD600

82812, Revision 0 – Standard Basket

Options

70405, Revision 3 – Walkway ←

70402, Revision 1 – Lid Door

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

Work Order: 2016-164

Date Open: 16 Dec 2016

1. Rim Assembly – Basket Lid

- Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig, 45 degree ends.
 - 1 or 2 lid prop bushing holes in short tube – refer to drawing
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.

2. Weld Rim Assembly

- Record welding rod PO on attached material list.

3. Inspection

- Rim for complete welds

4. Frame assembly – Lid

- General
 - Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)
- Insert rim from step 2 into jig.
- Cut and fit $\frac{3}{4}$ " x 0.035 material, 21" long, for lid cross members.
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.
- Drill vent holes into rim to vent cross members into rim.
- Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

5. Frame assembly – Lid with optional walkway modification

- Fit cross members to rim in accordance with step 4.
- Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
- Cut $\frac{1}{2}$ " x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
- Drill vent holes into cross members at walkway stringers.
- Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

6. Weld frame assembly.

- Record welding rod PO on attached material list.
- Jigs must remain in place for as long as practical during welding.

7. Inspection

- Frame assembly for complete welds.

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AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05 AD 73-04 05

CARGO BASKET LID FABRICATION

8. Mesh assembly.

Note: 95912 (Bell 429) does not have mesh. Skip to step 10.

- Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- Cut mesh to size for lid.
- Remove surface rust with scotch-brite.
- Ensure lid is prepared for mesh on the correct side.

9. Weld mesh to frame assembly per drawing.

- General welding requirements for all lids:
 - Every intersection on all edges.
 - First 5 intersections along cross members, then every second intersection.
- MIG weld both short sides.
- Clamp lid over spacer at centre of lid to pre-tension mesh.
 - $\frac{3}{4}$ " for lids under 76"
 - 1" (check) for lids over 76"
- Weld remainder of mesh as indicated in a.
- Record welding rod PO on attached material list.

10. Weld lid components.

- Handle brackets, locate in accordance with drawing.
 - Standard location: $\frac{1}{4}$ " outside of last cross member on both ends.
 - Record handle bracket WO and welding rod PO on attached material list.
- Lid prop bushing(s).
 - one or two in accordance with drawing.
 - Record lip prop bushing WO and welding rod PO on attached material list.
- Placard bracket. – not installed on 95912 (Bell 429)
 - Locate on cross member to set bracket in centre bay of lid.
 - Record placard bracket WO and welding rod PO on attached material list.

11. Clean up

- Grind high spots off mesh welds.
- Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
- Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
- Drill #9 through lid prop bushing(s). De-burr hole(s).
- Drill for lid bumpers using $\frac{1}{4}$ " (#3) centre drill.
 - 3 places for lids under 76"
 - 4 places for lids over 76"
- Remove surface rust with scotch-brite pad.

12. Final Inspection

To be completed by a different person than the previous steps.

- Basket lid assembly for complete welds, and required minimum mesh weld locations.
- Material lists complete.
- Overall condition and conformity to drawing(s).

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AD 73-04 07
Complete (initial or SCA #) 73-04 07

AD 73-04 05
AD 73-04 05
AD 73-04 05
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AD 73-04 05

AD 73-04 05
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AD 73-04 07
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AD 73-04 02
AD 73-04 02
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AD 73-04 02
AD 73-04 02

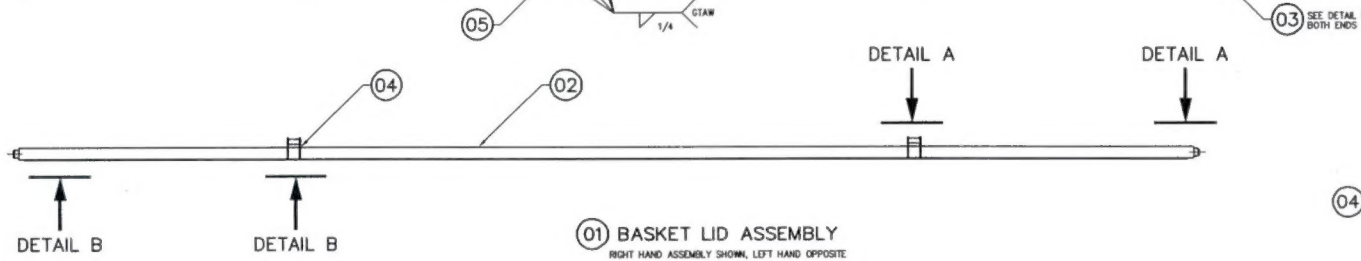
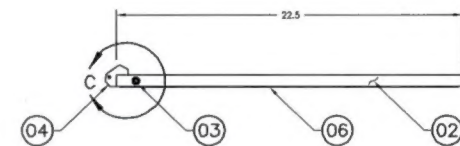
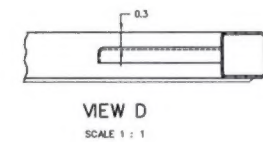
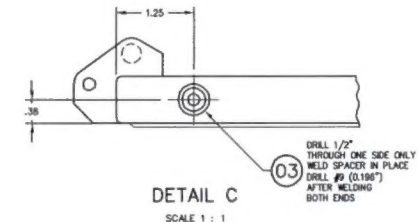
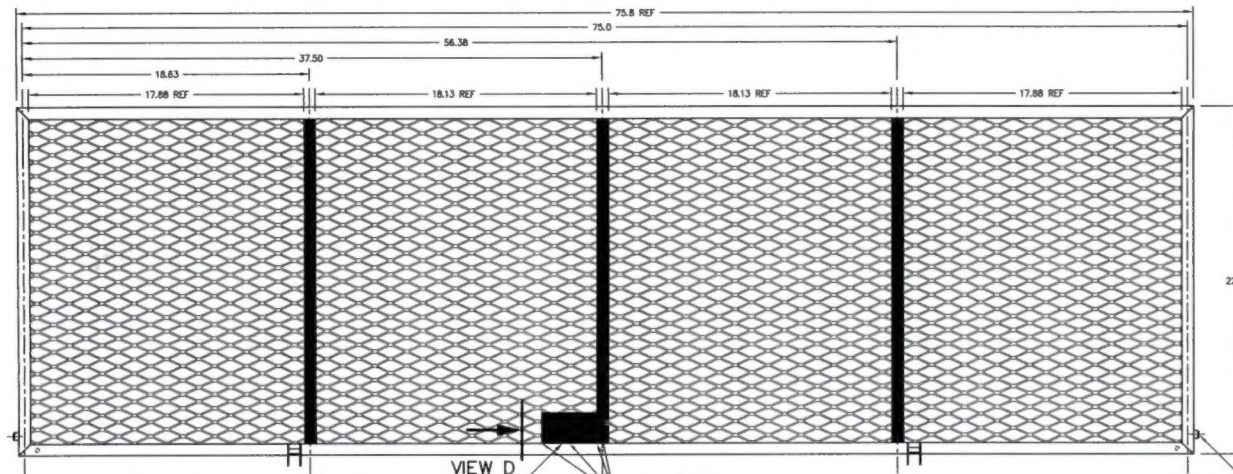
CARGO BASKET LID FABRICATION

13. Powder Coating

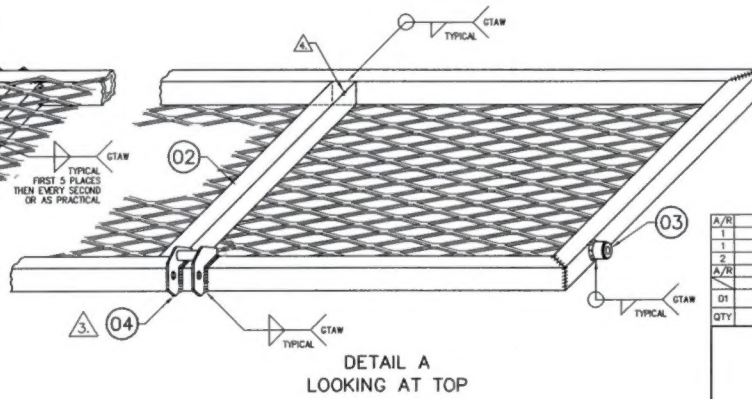
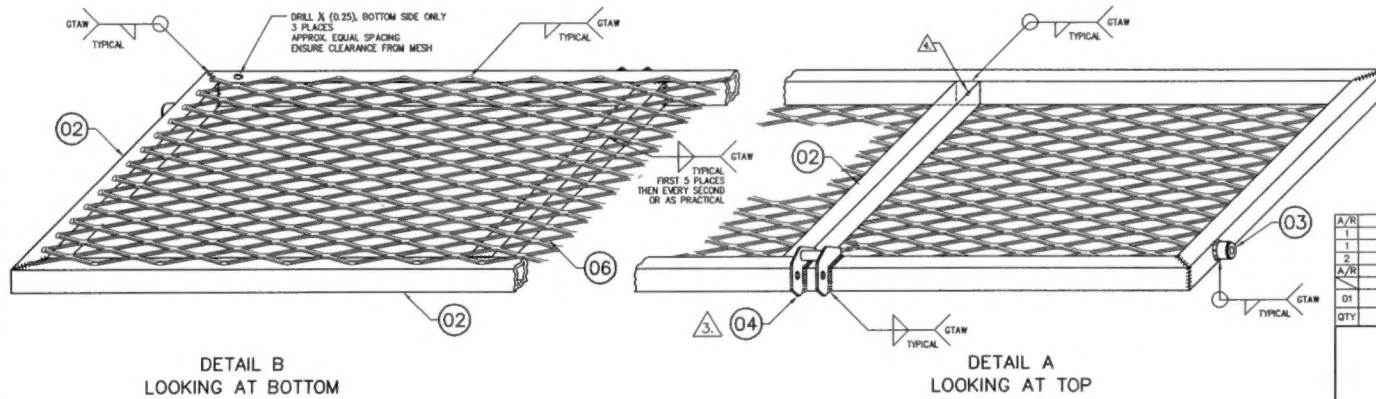
- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag lid assembly and place into stock in preparation for assembly.

AD	AD	AD	Complete
73-04	73-04	73-04	(initial or SCA #)
02	02	02	AD
			AD
			73-04
			02
			73-04
			02

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL RELEASE	RR	20 FEB 08
1	CHANGED LOCATIONS OF SUPPORTS	BJC	28 JAN 10
2	CHANGED HANDLE BRACKETS, ADD LEFT HAND CONFIGURATION	BJC	15 SEPT 11
3	CHANGED LOCATION OF SUPPORTS, REMOVE SIDED CONFIGURATIONS	BJC	11/07/2014
4	TITLE BLOCK UPDATED: 84262 CHANGED TO 84263; WELDING ROD UPDATED; # OF WELDS DOWN BRACE TUBES INCREASED; REFERENCE DIMENSIONS ADDED	BJC	
1/4" HOLES FOR BUMPERS ADDED, VIEW D ADDED			

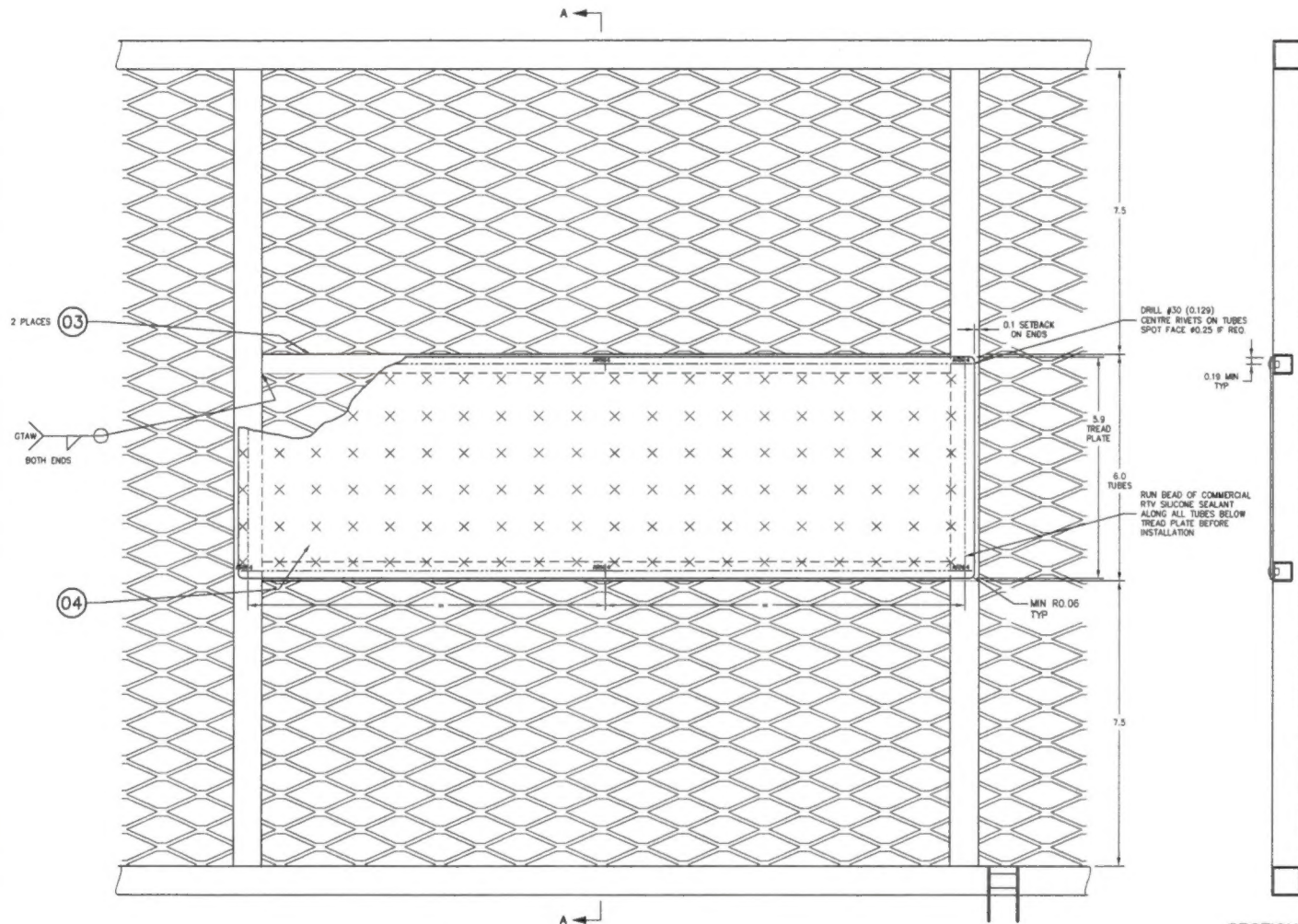


- NOTES:
1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
 2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AWS 2885C. 4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT. STAINLESS AND 4130 STEEL: WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT.
 3. INSTALL ITEM 4 (LID HANDLE PROVISIONS ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 84263.
 4. DRILL #30 (0.125) HOLES IN LONG TUBE MEMBERS AT BRACE LOCATIONS TO VENT WELD GASSES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
 5. FINISH: THOROUGHLY CLEAN AND POWDER COAT LID ASSEMBLY.



A/R	3/4-16F	06	MESH	MILD STEEL	COMMERCIAL	
1	36204-10	05	PLACARD BRACKET			
1	84263-01	04	LID HANDLE PROVISIONS ASSEMBLY			
2	49216-01	03	SPACER			
A/R	02	TUBE	4130 STEEL, COND. N	MIL-T-8736	0.75 X 0.035 SQR. TUBE	
	69812-01	01	BASKET LID ASSEMBLY			
QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
LIST OF MATERIALS						
APPROVALS			DATE			
DRAWN: JEFF CLARKE			11 APR 2008			
CHECKED: E. BURGON						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:						
DECIMALS			ANGLES			
X.XXX ±0.010			±1/2"			
X.XX ±0.03						
X.X ±0.1						
AERO DESIGN LTD.			9888A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 804.680.2276 www.aerodesign.ca			
QUICK RELEASE CARGO BASKET BASKET LID ASSEMBLY						
SCALE 1 : 4		DWG. SIZE	DWG. NO.	REV.		
SHEET 1 OF 1		A1	69812	4		


REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
1	ADD BELL MEDIUM AND EUROCOPTER AS350 BASKETS, CHANGE TUBES	BUC	MAR 15/08
2	ADD EUROCOPTER EC135, MCDONNELL DOUGLAS MD600N, BELL 208B BASKETS	BUC	DEC 4/08
3	ADD NEW AS350 AND 208L/407 MODELS	BUC	DEC 4/08
4	TITLE BLOCK UPDATED; MODEL LIST REMOVED; ADD ALT. RVET; ADD NOTE 7	BUC	28/05/2014



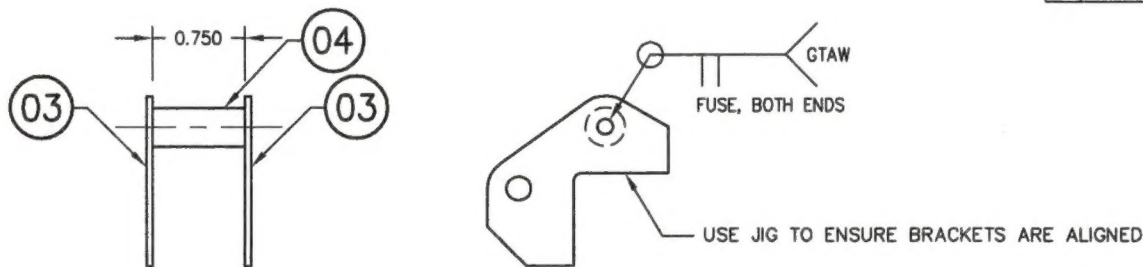
① BASKET LID ASSEMBLY

1. THIS DRAWING IS AN OPTIONAL CONFIGURATION ADDING A TREAD PLATE STEP TO THE LID. THIS CONFIGURATION MAY BE APPLIED TO ANY OR ALL BAYS OF THE LID. REMAINDER OF LID ASSEMBLY IS TO BE FABRICATED IN ACCORDANCE WITH THE APPLICABLE DRAWINGS.
2. TREAD PLATE MUST BE WELDED TO THE LID BEFORE MESH IS WELDED ON BOTTOM.
3. REMOVE ALL BURRS AND BREAK SHARP EDGES.
4. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2885C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
5. WHEN ASSEMBLY IS COMPLETE, FILL ALL GENT VEHES WITH ROSETTE WELD.
6. THOROUGHLY CLEAN AND POWER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY.
7. TREAD PLATE LID AFTER POWER COATING.
8. WIDTH AND POSITION OF LID STEP MAY BE ADJUSTED TO MATCH LID DOOR INSTALLED IN ACCORDANCE WITH DRAWING 70402 ON ADJOINING BAY OF THE LID.

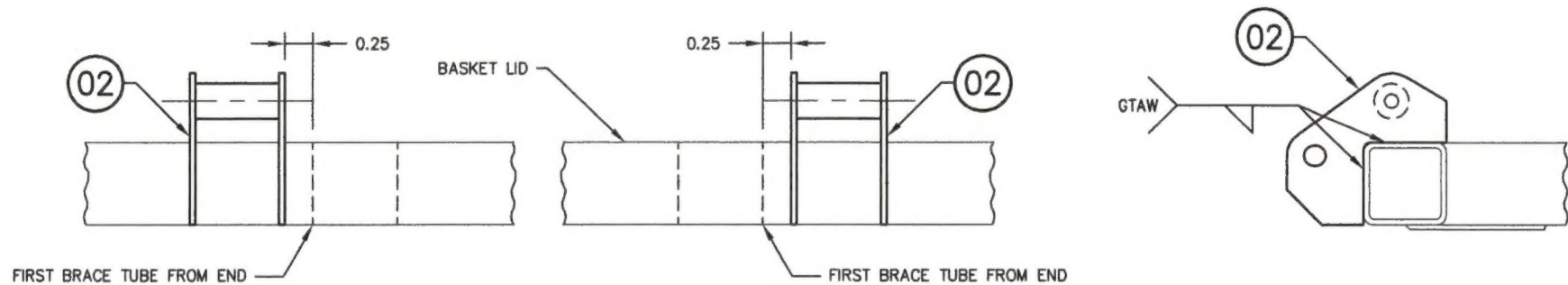
A/R	CR5213-4-02	BUNG RIVET	ALTERNATE: HR5213-4-02			
1	70405-04	04 TREAD PLATE	ALUMINUM	COMMERCIAL	0.083 TREAD PLATE	
2	70405-03	03 TUBE	4130 STEEL COND. N	MIL-T-6736	0.5 X 0.035 WALL TUBE	
1	SEE NOTE 1	02 BASKET LID ASSEMBLY				
	70405-01	01 BASKET LID ASSEMBLY - MODIFIED WITH STEP				
Q1	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					

BASIC CODE REF= NAS 523 C=COUNTERSINK D=DIMPLE DIGIT=# OF SHEETS TO BE DIMPLED		DASH NO. FOR DIAMETER N=NEAR HEAD F=FLAT HEAD R=ROUND HEAD S=SPRUE DASH NO. FOR LENGTH		APPROVALS DRAWN: JEFF CLARKE CHECKED: E. BURGOON DATE: 21 SEPT 2008		LIST OF MATERIALS  AERO DESIGN LTD. 6888A MALAPASOA ROAD POWELL RIVER, BC, CANADA, V9G 0G3 TEL: 804-483-5376 www.aerodesign.ca	
BASIC CODES: BU=MS20470AD BB=MS20428AD ARN=CR3213 ARN=CR3212		+ ⊕ INSTALL NEW RIVET + ⊕ REPLACE/REPLACE RIVET ⊕ ⊕ EXISTING RIVET		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1		CARGO BASKET LID STEP MODIFICATION SCALE 1 : 1 SHEET 1 OF 5 DIM. SCALE DIM. NOS. REV. A1 70405 4	

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE - CREATED FROM 84262 REV. 1	BJC	14/02/2014



02 HANDLE BRACKET ASSEMBLY



01 LID HANDLE PROVISIONS ASSEMBLY

NOTES:

1. REMOVE ALL BURRS AND SHARP EDGES.
2. WELDING TO BE COMPLETED BY GTAW METHOD TO AMS2685C USING ROD CONFORMING TO ER308L OR EQUIVALENT.

1		36275-02	04	SUPPORT
2		36273-01	03	LID BRACKET
	2	84263-02	02	HANDLE BRACKET ASSEMBLY
		84263-01	01	LID HANDLE PROVISIONS ASSY
02	01	PART NO.	ITEM	DESCRIPTION
QTY	QTY	LIST OF MATERIALS		

APPROVALS	DATE
DRAWN: JEFF CLARKE	14 FEB 2014
CHECKED: JASON REKVE	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ±0.010 ±1/2°
X.XX ±0.03
X.X ±0.1



AERO DESIGN LTD.

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POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 804.483.2370 www.aerodesign.ca

HELICOPTER CARGO BASKET
LID HANDLE PROVISIONS ASSEMBLY

SCALE	DWG. SIZE	DWG. NO.	REV.
SCALE 1 : 1	A3	84263	0
SHEET 1 OF 1			